

Name: _____

ml1112paper: Solve by factoring (v5)

1. Solve the equation

$$x^2 - 81 = 0$$

$$(x + 9)(x - 9) = 0$$

$$x = 9$$

$$x = -9$$

2. Solve the equation

$$x^2 - 2x - 15 = 0$$

$$(x + 3)(x - 5) = 0$$

$$x = 5$$

$$x = -3$$

3. Solve the equation

$$5x^2 + 2x + 24 = 4x^2 - 7x + 6$$

$$x^2 + 9x + 18 = 0$$

$$(x + 6)(x + 3) = 0$$

$$x = -3$$

$$x = -6$$

4. Solve the equation

$$6x^2 + 25x + 66 = 5x^2 + 8x - 6$$

$$x^2 + 17x + 72 = 0$$

$$(x + 9)(x + 8) = 0$$

$$x = -8$$

$$x = -9$$

5. Solve the equation

$$3x^2 + 2x - 16 = 0$$

$$(3x + 8)(x - 2) = 0$$

$$x = 2$$

$$x = \frac{-8}{3}$$

6. Solve the equation

$$5x^2 + 48x + 64 = 0$$

$$(5x + 8)(x + 8) = 0$$

$$x = -8$$

$$x = \frac{-8}{5}$$

7. Solve the equation

$$12x^2 - 55x - 12 = 5x^2 + 7x - 3$$

$$7x^2 - 62x - 9 = 0$$

$$(7x + 1)(x - 9) = 0$$

$$x = 9$$

$$x = \frac{-1}{7}$$

8. Solve the equation

$$7x^2 + 49x + 65 = 2x^2 - 3x + 2$$

$$5x^2 + 52x + 63 = 0$$

$$(5x + 7)(x + 9) = 0$$

$$x = -9$$

$$x = \frac{-7}{5}$$